



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|-----------------------|---------------------|------------------|
| 09/601,233 | 07/31/2000 | ANDREW AUGUSTINE WAJS | 82032-00002 | 8738 |

7590

11/22/2005

Andre I. Marais
SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.
1600 TCF TOWER
121 South Eighth Street
Minneapolis, MN 55402

EXAMINER

ZAND, KAMBIZ

ART UNIT

PAPER NUMBER

2132

DATE MAILED: 11/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|-------------------------------|-----------------------------|--|
| Office Action Summary | Application No. 09/601,233 | Applicant(s) WAJS ET AL. | |
| | Examiner Kambiz Zand | Art Unit 2132 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 September 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-13, 26-29 and 31-35 is/are allowed.
- 6) ☒ Claim(s) 14-17, 19, 20, 22-25 and 36 is/are rejected.
- 7) ☒ Claim(s) 18, 21 and 30 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

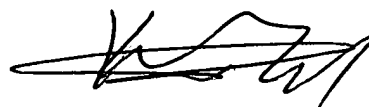
Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>09/19/2005</u> . | 6) <input type="checkbox"/> Other: _____ |



DETAILED ACTION

1. The text of those sections of Title 35, U.S. Code not included in this section can be found in the prior office action.
2. The prior office actions are incorporated herein by reference. In particular, the observations with respect to claim language, and response to previously presented arguments.
3. Claim 12 has been amended.
4. Claims 1-36 are pending.

Response to Arguments

5. Applicant's arguments filed 09/19/2005 have been fully considered and they are persuasive with respect to claim 12.
6. However the arguments presented with respect to claim 14 are not persuasive for the following reasons: Examiner considers "the input to the shuffling and entropy coding processes" as an act on which dependency get created as disclosed in the rejection below.

Information Disclosure Statement PTO-1449

7. The Information Disclosure Statement submitted by applicant on 09/19/2005 has been considered. Please see attached PTO-1449.

Claim Objections

8. **Claim 30** is objected to because of the following informalities: Claim 30 is objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim "14-25". See MPEP § 608.01(n).

Examiner suggests if claim 30 is dependent on claim 29, then the dependency over 14-25 be deleted from the claim language.

Claim Rejections - 35 USC § 102

9. **Claims 14 and 20** are rejected under 35 U.S.C. 102(b) as being anticipated by Lei Tang (Method for Encrypting and Decrypting MPEG Video Data Efficiently) recited in the IDS, paper number 4 by Applicant.

As per claim 14 Lei Tang (Method for Encrypting and Decrypting MPEG Video Data Efficiently) teach a system for descrambling a scrambled information signal obtainable by combining a scrambling signal with the information signal (see abstract; section 4.1 and 4.2 on page 223 that is self explanatory with respect to a system that decrypt (descramble, the scramble signal)), comprising means for descrambling the scrambled information signal to provide the information signal (see page 222, section 4.2; and see page 223, section 4.2 where the system goal is "...to achieve compression (decompression) and encryption (decryption) in one step"), wherein said descrambling means comprises means for regenerating the scrambling signal as a descrambling

Art Unit: 2132

signal and means for combining the descrambling and scrambled information signals to obtain the information signal (see page 219-220 where the descrambling of the scramble signal and decompression is being done in one step; and page 222, section 3 "related works" disclose that some of the information in the signal not needed to scramble and that is the idea of selective scramble or encryption and therefore the descrambling of the scramble signal yields to a part of signal initially scrambled and combination of the descramble part with the original signal yields to information signal). Also see pages 219-229 for more detail including the added limitation in the claim.

As per claims 20 Lei Tang (Method for Encrypting and Decrypting MPEG Video Data Efficiently) teach a system according to claims 14, wherein the scrambled information signal is compressed and decompressed, wherein the regenerating means comprises means for equalizing the descrambling signal to compensate for compressing and decompressing of the original scrambling signal contained in the scrambled information signal (see page 219, abstract where the method is based on jpeg and MPEG; section 1.1, introduction, line 1, second paragraph, section 2.1 and 2.2 and section 4.1).

Also see the entire reference with respect to the limitations of the above claims.

Claim Rejections - 35 USC § 103

10. **Claims 15-17, 19 and 22-25** are rejected under 35 U.S.C. 103(a) as being unpatentable over Lei Tang (Method for Encrypting and Decrypting MPEG Video Data Efficiently) recited in the IDS, paper number 4 by Applicant, in view of Rhoads (6,567,533 B1).

As per claims 13, 15 and 19 Lei Tang (Method for Encrypting and Decrypting MPEG Video Data Efficiently) teach all limitation of the claim a system according to claims 12 and 14, wherein said analyzing means provides scrambling control information but do not disclose generating means generates a noise signal and comprises means for processing said noise signal as controlled by the scrambling control information to obtain the scrambling signal, wherein said scrambling control information is transferred to the descrambling system, wherein said regenerating means generates a noise signal and comprises means for processing said noise signal as controlled by the scrambling control information to obtain the descrambling signal; wherein the scrambling control information is transferred to the descrambling system as part of the information signal. However Rhoads (6,567, 533 B1) disclose generating means generates a noise signal (see fig.6, items 202 and 222; fig.7, item 206 and 242, fig.8 and fig.29) and comprises means for processing said noise signal as controlled by the scrambling control

information to obtain the scrambling signal (see fig.7 where the noise source is processed as a code and encoded by item 202 to provide scrambling or encoding signal output), wherein said scrambling control information is transferred to the descrambling system, wherein said regenerating means generates a noise signal and comprises means for processing said noise signal as controlled by the scrambling control information to obtain the descrambling signal; wherein the scrambling control information is transferred to the descrambling system as part of the information signal (see col.17, lines 26-67 and col.18, lines 1-54 where different methods of decoding of a signal that has embedded noise signal is discussed in detailed). It would have been obvious to one of ordinary skilled in the art at the time the invention was made to utilize Rhoads 's noise signal generation in scrambling system of Lei Tang in order to trace pirated knock-offs to the original from which they were made in addition to protect data streaming piracy data such as music and videotape recording.

As per claim 16 Lei Tang (Method for Encrypting and Decrypting MPEG Video Data Efficiently) teach all limitation of the claim of a system according to claim 15 but do not disclose a white noise generator and filtering means controlled by said scrambling control information to filter the white noise to obtain noise having an entropy distribution corresponding with the entropy distribution of the information signal. However Rhoads (6,567, 533 B1) disclose a white noise generator and filtering means controlled by said scrambling control information to filter the white noise to obtain noise having an entropy distribution corresponding with the entropy distribution of the information signal (see

Art Unit: 2132

col.23, lines 45-67 and col.24, lines 1-38 where the regeneration of white noise and the filtering technique is detailed). It would have been obvious to one of ordinary skilled in the art at the time the invention was made to utilize Rhoads 's noise signal generation in scrambling system of Lei Tang in order to provide more absolute signal strength to the identification signal relative to the perceptibility of that signal.

As per claim 17 Lei Tang (Method for Encrypting and Decrypting MPEG Video Data Efficiently) teach all limitation of the system according to claim 15, but do not disclose a narrow band noise signal generator and modulating means for modulating the narrow band noise signal controlled by said scrambling control information to obtain noise having an entropy distribution corresponding with the entropy distribution of the information signal. However Rhoads (6,567, 533 B1) disclose a narrow band noise signal generator and modulating means for modulating the narrow band noise signal controlled by said scrambling control information to obtain noise having an entropy distribution corresponding with the entropy distribution of the information signal (see col.18, lines 36-67; col.19, lines 1-15).). It would have been obvious to one of ordinary skilled in the art at the time the invention was made to utilize Rhoads 's noise signal generation in scrambling system of Lei Tang in order to trace pirated knock-offs to the original from which they were made in addition to protect data streaming piracy data such as music and videotape recording.

Art Unit: 2132

As per claim 22 Lei Tang (Method for Encrypting and Decrypting MPEG Video Data Efficiently) teach all limitation of the claim of system according to claim 14, but do not disclose at least a part of the regenerating means, in particular the noise signal generator, is accommodated in a secure device, for example a smart card. However Rhoads (6,567, 533 B1) disclose at least a part of the regenerating means, in particular the noise signal generator, is accommodated in a secure device, for example a smart card (see claim 1 above and fig.24). It would have been obvious to one of ordinary skilled in the art at the time the invention was made to utilize Rhoads 's noise signal generation in a smart card in Lei Tang's method and system in order to trace pirated knock-offs to the original from which they were made in addition to protect data streaming piracy data such as music and videotape recording.

As per claim 23 Lei Tang (Method for Encrypting and Decrypting MPEG Video Data Efficiently) teach all limitation of the claim of a system according to claim 22, but do not disclose the secure device is adapted to add a watermark signal to the descrambling signal. However Rhoads (6,567, 533 B1) disclose the secure device is adapted to add a watermark signal to the descrambling signal (see abstract where it state that the technology also could be used in watermarking). It would have been obvious to one of ordinary skilled in the art at the time the invention was made to utilize Rhoads 's noise signal generation in a smart card in Lei Tang's method and system in order to trace pirated knock-offs to the original from which they were made in addition to protect data streaming piracy data such as music and videotape recording.

As per claim 24 Lei Tang (Method for Encrypting and Decrypting MPEG Video Data Efficiently) teach a system according to claim 22, wherein the secure device is adapted to add a compression hindering signal to the descrambling signal (see page 223-226).

As per claim 25 Lei Tang (Method for Encrypting and Decrypting MPEG Video Data Efficiently) teach all limitation of the claim of the system according to claim 14, but do not disclose the scrambled information signal and the descrambling signal are digital signals, wherein means are provided for converting the scrambled signal and the descrambling signal into analog signals, wherein the combining means combine the analogue signals to obtain a clear analogue information signal. However Rhoads (6,567, 533 B1) disclose the scrambled information signal and the descrambling signal are digital signals, wherein means are provided for converting the scrambled signal and the descrambling signal into analog signals, wherein the combining means combine the analogue signals to obtain a clear analogue information signal (see col.16, lines 27-61 where the system is capable of digital to analog conversion and vice versa). It would have been obvious to one of ordinary skilled in the art at the time the invention was made to utilize Rhoads 's noise signal generation in scrambling system of Lei Tang in order to trace pirated knock-offs to the original from which they were made in addition to protect data streaming piracy data such as music and videotape recording either in analog or digital format.

Allowable Subject Matter

11. Claims 1-12, 13, 26-29 and 31-35 are allowed.
12. Claim 18 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
13. Claims 21 and 30 is objected to but would be allowed if it over comes the objection rendered above; and if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

14. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kambiz Zand whose telephone number is (571) 272-3811. The examiner can normally be reached on Monday-Thursday (8:00-5:00). If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on (571) 272-3799. The fax phone numbers for the organization where this application or proceeding is assigned is (571) 272-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Kambiz Zand

11/16/2005

AU 2132